

MISSOURI CONSERVATIONIST

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Vantage Point

Your Input Counts!

Deer harvest in Missouri has doubled during the last 10 years. Forty percent of the deer taken in Missouri are antlered bucks.

In 2003, 80 percent of deer hunters reported hunting on private land, and half reported taking at least one deer during the season. Nearly half of deer hunters favor management for large bucks. Given the choice, about twice as many participants in last spring's public meetings favored an antler-point restriction over a delayed season, an "earn-a-buck" approach or other deer management options.

During the last decade, we interviewed 134,000 anglers on Lake Taneycomo. The anglers caught an average of $\frac{1}{2}$ to 1 rainbow trout per hour, and the fish averaged 10–12 inches long. When we conducted a statewide survey of anglers in 2002, about one-third reported fishing more than 25 days a year. Of the catfish anglers surveyed in 2001, 4 of 10 reported good to excellent catfishing.

What is the common theme across these fish and wildlife facts? All of the information came from Missouri citizens who responded to mail surveys, showed up at check stations, attended public forums, cooperated with creel censuses, and reported wildlife observations. During 40 different survey and public input efforts in the last year alone, the Conservation Department contacted more than 200,000 Missourians for their input.

The Conservation Department uses input derived from surveys and public meetings—what we call "citizen science"—each year when fish and wildlife regulations are considered. In the past, public input has prompted us to adjust seasons and fish length limits and to create quality fishing areas. This year, public opinion guided us as we made substantial changes to the deer hunting regulations.

Information about hunting activity, harvest, and preferences of Missouri landowners is critical in helping us manage state's deer herd. We typically survey a random sample of permit holders, but we haven't been able to survey landowners who hunt deer because they didn't have to register for permits. Beginning in 2004, however,



all landowners are required to acquire a free permit to hunt deer and turkeys on their land.

The new, no-cost, uniquely-numbered, landowner permit also allows us to provide the convenience of "telecheck" for the first time to Missouri landowners. Landowner deer and turkey hunters and lessees can now report their harvest success over the phone by calling, toll-free, 800/314-6828 to check a turkey, and 800/668-4045 to check a deer. See the back cover of the "2004 Fall Deer and Turkey Hunting Information" pamphlet for more details. Telechecking also will be available to all fall turkey hunters.

We may expand the program in the future. That decision will be made after we have evaluated whether telechecking provides us with good information and whether the public finds it useful and convenient.

Making the best management decisions concerning our forest, fish and wildlife resources requires good information. To help improve the scope and accuracy of our data, I urge you to cooperate with survey takers, to attend meetings and to let us know your feelings, ideas and preferences.

Your input counts! And we count on your input.

Dale Humburg, Resource Science Division Administrator

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Reflections

PECKED

One thing not mentioned in your article on woodpeckers is that they can be very destructive. We are retired and were gone from our home (a cedar home) for 9–10 weeks. When we returned the woodpeckers had put 62 holes in the cedar siding 3–4 inches wide and all the way to the insulation! These birds cost us over \$10,000 for new siding, as insurance would not cover the damage.

Norm Walters, via Internet

ADD BLEACH

I just discovered that one of five house finches visiting my feeder have mycoplasma conjunctivitis. The suggested response is sterilizing my feeder with bleach. This is a common problem in the Midwest. This disease can be transmitted to other birds, including turkeys. Wouldn't it be a good idea to inform, via the *Conservationist*, the necessity of sterilizing feeders on a weekly basis?

Larry Wegmann, Festus

Editor's note: We've talked about finch conjunctivitis in the past, but it never hurts to remind people about it. Feeders can attract diseased birds that have trouble finding wild food. To keep diseases from spreading, occasionally wash feeders in a bleach solution and rinse. If a disease seems epidemic in your area, it's best to stop feeding birds to keep from spreading it even more.

SCENIC BUT POWERFUL

I liked your story, "Enjoy the Scenic Missouri." What a trip! I wish I could have been on it!

Having been raised in Morrison Bottom in the early 1930s, I know all about what "Old Mo" can do. I've been in every major flood since 1933, including the big ones in 1935, 1941, 1943, 1944, 1946, 1947, 1951, 1986, 1993 and 1995.

Our family moved to higher farming ground in Chamois Bottoms in 1950, and the next year we had the biggest

flood to that date. The 1993 flood was the granddaddy of all floods since the early 1800s. It flooded for 70 days.

It's good to enjoy the scenic Missouri River, but you also have to respect its powers.

Marvin Lieneke, Chamois

HEADSHOT

Your article on scattergunning for squirrels made me chuckle.

I was born and raised in Boone County in the 1920s and 1930s. Although squirrel was one of our main menu items, we never hunted them with a shotgun and never shot one in the head.

You see, the best part of a squirrel is the head, mainly the brains, but the tongue and snout are also good. Try it and you will like it.

Paul D. Ellis, Raytown

LIST CLEANING

We have about five or six other magazine subscriptions, but the *Missouri Conservationist* magazine is the best read subscription in our household.

Would just like to add the comment that I think you're doing a great service by periodically asking for updates of subscriptions. That's very cost conscientious and efficient. Kudos!

Jeralyn Nabe, Ellington

Editor's note: To avoid waste and keep our subscriber list current, we periodically send out a portion of our magazines with a wrap-around, card stock cover that asks the reader to renew his or her free subscription.

LACKS WALL SPACE

I couldn't resist framing the beautiful hummingbird picture that was on the back cover of your August issue. If I had more wall space, I could fill it with the colorful and authentic photos taken by Jim Rathert.

Also, the *Outside In* section is always interesting. I read it and then mail it to



MUSHROOM MIX

Charlotte O'Bryan of Sunrise Beach noticed lots of mushrooms growing in her yard last October 10. She clustered them together in a large bunch for a unique photo. This is a collection of colorful mushrooms, not edible mushrooms.

my great-grandchildren in Tennessee. Our *Conservationist* doesn't do anything but get better!

Pat Hoven, Pacific

GRATEFUL

I was reading in your September issue about all the people who have donated land to conservation, and I would just

like to say "Thank you!" to all the people that have been able to do this.

I think it this a wonderful thing they have done for everyone who enjoys the wonderful outdoors. I don't know of any other way than by writing this letter to let them know how thankful people like me are.

Robert Bourbon, Bonne Terre

The letters printed here reflect readers' opinions about the Conservationist and its contents. Space limitations prevent us from printing all letters, but we welcome signed comments from our readers. Letters may be edited for length and clarity.

Ask the Ombudsman



Q: How is a deer hunter supposed to tell if a buck has an antler point 1 inch long if the deer is running, or in brush or a long ways off?

A: New this year, a pilot program in 29 counties will require deer hunters (except during the youth portion) to determine that an antlered deer has at least four points (a point must be at least 1 inch in length) on at least one side of its antlers to be a legal buck. As long as one side of the rack has four points, it doesn't matter how many points are on the other side. Antlerless deer in these counties may be taken as

provided by the regulations.

Safety should be every hunter's first priority. Responsible hunters already carefully examine their game and the area surrounding the game. Everyone who's had a hunter ed course knows the importance of identifying the target and what lies beyond. Taking the deer's antlers into consideration is part of this process.

The short answer to your question is the responsible hunter will not take the shot if he or she can't determine the deer is legal. It's no different than the spring turkey hunter who has to determine if a bird has a visible beard, or the waterfowler who must distinguish a wood duck from a teal in September, or the pheasant hunter who is required to take a rooster and not a hen.

Information provided by other states which have gone the route of antler restriction regulations in order to bring a better balance between does and bucks indicates that the majority of hunters will abide by the regulation. These states have indicated the majority of hunters have accepted this type of regulation and feel it's working to balance the deer herd.

For more information on the pilot program and fall deer and turkey hunting see <www.missouriconservation.org/hunt/deer/deertuk/> or pick up the "2004 Fall Deer & Turkey Hunting Regulations and Information" booklet wherever permits are sold or at most Conservation Department offices.

Ombudsman Ken Drenon will respond to your questions, suggestions or complaints concerning Conservation Department programs. Write him at P.O. Box 180, Jefferson City, MO 65102-0180, call him at 573/522-4115, ext. 3848, or e-mail him at <Ken.drenon@mdc.mo.gov>.

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Sneezeweed

A mysterious *Helenium* has its day in the sun.

by Rhonda L. Rimer, photos by Jim Rathert



Visit a Missouri prairie, pasture, marsh or roadside during the fall, and you'll encounter the golden-flowered perennial members of the genus *Helenium*. This group is well represented in Missouri by several species, and they all resemble miniature sunflowers.



The unassuming flowers of *Helenium* have captured imaginations for many centuries. The Greeks were the first known to pay homage to the flowers through lore and legend. One Greek tale suggests that *Helenium* first grew on ground watered with the tears of Helen of Troy. Another myth asserts that the plant took the name of *Helenium* after Helena, wife of Menelaus, who had her hands full of the flowers when Paris stole her away into Phrygia. Another story suggests that the plant was named for the island of Helena, where the most favored medicinal plants reputedly grew.

Although these derivations are colorful, it is most likely that the name *Helenium* was derived from the

***Helenium* flowers, like sneezeweed, resemble the sun. Their name probably came from the Greek “helios,” or sun.**



Greek word “helios,” meaning sun. The plant’s small yellow flowers do resemble diminutive suns.

Helenium, however, does have extraordinary properties. In the new world, many groups of Native Americans cultivated and used *Helenium* for various medicinal purposes, including treating fevers and head colds. The common name, sneezeweed, was probably derived from the use of the dried flowers as snuff by natives and early settlers. Constantine Rafinesque, in his 1828 *Medical Flora of the United States*, wrote, “sneezeweed could be used in diseases of the head, deafness, headache, rheumatism or congestion of the head and jaws. The plant probably has many other properties, little known as yet and deserving investigation.”

The plant’s medicinal value has been confirmed by the National Cancer Institute, which identified significant antitumor qualities in sneezeweed compounds.

This group of plants had long been thought to be represented in the state by three fairly common and weedy species, all resembling miniature sunflowers. However, renowned botanist Julianne Steyermark, author of *The Flora of Missouri*, once spotted another species while changing a tire outside of Pomona. The plant was growing along a sinkhole pond near the highway.

Steyermark never identified the *Helenium* he found that day. The physical characteristics of the plant that he located were similar to that of a plant known only to occur around a handful of sinkhole ponds in the state of Virginia. Was the plant that Steyermark discovered actually Virginia sneezeweed? If so, how did it end up at a sinkhole pond in the Missouri Ozarks? Those questions remained unanswered until recently.

Comparing the DNA of the Pomona sneezeweed to that of the rare Virginia sneezeweed, Dr. John Knox recently determined they were the same species. How it came to the Missouri Ozarks is still a puzzle.

Scientists and conservationists in Missouri began to propagate the species in Missouri. A team of biologists including Kim McCue (Center for Plant Conservation), George Yatskievych (Missouri Botanical Garden), Paul McKenzie (U.S. Fish and Wildlife Service), and me (Missouri Department of Conservation) collected seeds from the Pomona population and transported them to the Center for Plant Conservation in St. Louis.

Remarkably, although isolated populations of plants often don’t produce viable seed, the seeds we collected were healthy. We were able to successfully grow the plants in a greenhouse.

We then began looking for appropriate sites within a 20-mile radius of where the plants were found to establish Virginia sneezeweed populations. We were looking



Newly introduced Virginia sneezeweed is thriving at two Conservation Department areas.

for sinkhole ponds with seasonally variable water depth and open areas. Virginia sneezeweed loves sunlight, and it also competes well against other species in areas where the water level fluctuates.

We found two suitable sites on conservation areas. After an untimely cold snap that kept 192 baby Virginia sneezeweeds living in my kitchen for several days, I headed out with other sneezeweed lovers to introduce the young plants to their new homes in Howell County.

Over the next year, we monitored the young sneezeweeds to see how well each individual plant was faring. We also monitored the habitat conditions, especially water depth and periods of inundation.

This may seem like a lot of effort for a little plant but, to quote Aldo Leopold, “The last word in ignorance is the man who says of an animal or plant: ‘What good is it?’ If the land mechanism as a whole is good, then every part is good, whether we understand it or not. If

the biota, in the course of eons, has built something we like but do not understand, then who but a fool would discard seemingly useless parts? To keep every cog and wheel is the first precaution of intelligent tinkering.”

Sneezeweed has a long and fascinating cultural and medicinal history. Every time I visit the reintroduction sites to monitor the plants, I am amazed by how we are adding to this history with our reintroduction efforts for the Virginia sneezeweed. No project of this type has ever been attempted with this species anywhere in the world. What has been accomplished with Virginia sneezeweed can be likened to the birth of a rare animal in a zoo with intent of releasing the animal back into the wild so that it can reclaim its role in the natural ecosystem.

It’s possible that, in a few years, Virginia sneezeweed won’t be a little known curiosity but will be a success story about plant propagation and the maintenance of biodiversity. ▲

IN THE FOOTSTEPS OF *Lewis and Clark*



Conservation areas preserve the natural wonders marveled at by the Corps of Discovery. by Tim A. Nigh, photos by Jim Rathert

Their boats entered the mouth of the Missouri River on the afternoon of May 14, 1804. The water was murky and full of logs.

Lewis and Clark and their Corps of Discovery returned two years later with experiences and knowledge that propelled the exploration and settlement of western North America. They

started and completed this epic journey in Missouri.

Two hundred years later, you can visit places Lewis and Clark visited as explorers. Dioramas at conservation areas along their route provide a glimpse of a wild and untamed Missouri. You can retrace their footsteps and go on a personal Voyage of Discovery.



The Clark's Hill/Norton State Historic Site offers a view of the wide Missouri and Smoky Waters Conservation Area.

Mouth of the Missouri to the Manitou Bluffs

The first few weeks of the expedition was a transitional period for the Corps. The men were organized into “messes” and were learning to work together.

From the overlook at Columbia Bottom Conservation Area, you can imagine what that first day was like.



The river's floodplain lakes and backwaters attract numerous water birds, including stately white pelicans.

Lewis and Clark would have paddled over the top of the present day overlook as they moved between camp and St. Louis that winter. Major changes in the river's course have left many of their riverside camps high and dry.

After camping the first night at the head of a small island in the middle of a wider and more meandering river than the river of today, the crew passed Pelican Island and camped at the frontier village of St. Charles.

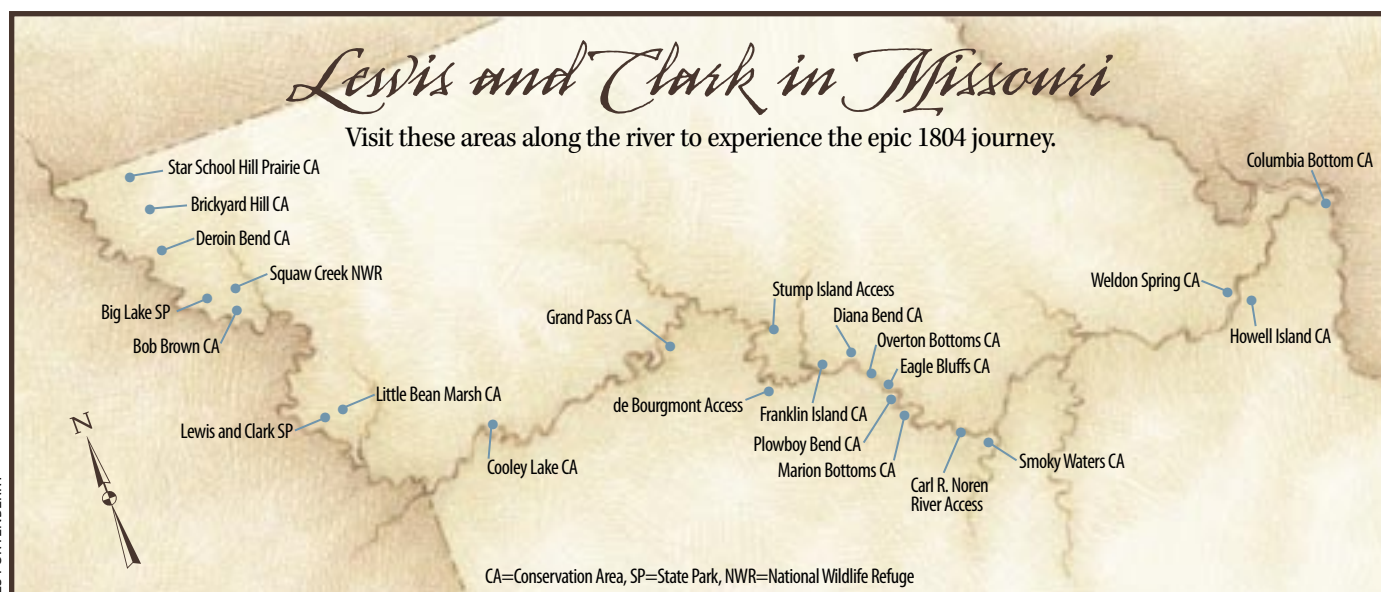
Departing St. Charles, Lewis and Clark passed farmers, merchants, traders and a friendly band of Kickapoo Indians. The crew continued to encounter settlements until La Charette, near present-day Marthasville.

Several members of the expedition were often ashore hunting in bottomland forests that contained enormous trees, mainly sycamore and cottonwood. Weldon Springs and Howell Island conservation areas offer opportunities to experience forests that are not much different from what they saw.

Two weeks into the journey, the crew camped at the mouth of the Gasconade River, where Clark made a variety of measurements and observations. This was his constant practice. Clark later constructed detailed maps of the Missouri River and its environs.



With its numerous sandbars and scattered islands, the Missouri River continues to fascinate explorers.



The river was rising when the crew arrived at the mouth of the Osage River on June 1. Drenching spring rains had been common those first two weeks of their journey.

This large tributary was named for the Osage or Wah-haz-he (Water People) who once lived there. In 1804, the Osage villages were far to the west, near the river's headwaters. Perhaps they moved to escape the hoards of "Musketos & Small Ticks" that tormented the Corps' members here.

While camped at the Osage, Lewis and Clark saw several traders descending the river with a load of furs that hinted of the bounty of these lands. They also captured a wood rat along this stretch. It was the first of many western animal species first described by the expedition.

You can climb to the top of "Clark's Hill," which overlooks Smoky Waters Conservation Area, and still see both the Osage and Missouri rivers from Clark's vantage point.

In the vicinity of Jefferson City and the Carl R. Noren River Access, the keelboat lost its mast to a tree limb. Despite these difficulties, one member of the expedition described this area as "a Butifull peas of Land as I ever saw."

For the next three days, the Corps of Discovery passed through the Manitou Bluffs region. Public lands in this area include Marion Bottoms, Plowboy Bend, Eagle Bluffs, Overton Bottoms, Diana Bend and Franklin Island conservation areas.

Near Marion, Clark's servant, York, "Swam to the sand bar to geather greens for our

Dinner and returned with a sufficient quantity wild Creases or Teng grass." Yellow cress, a native mustard seen commonly today, was an important addition to the crew's diet. They mostly ate wild game.

Because of the vast changes in the river course since then, their camp on the night of June 5, 1804, is now in the middle of the current Marion Bottoms Conservation Area. At Eagle Bluffs, the river flowed beneath the bluffs along the present course of Perche Creek. Here Clark described a "pierced rock" in the bluff that one can access from the Katy Trail. The party next camped near Lewis and Clark Spring, also accessible from the Katy Trail, between Huntsdale and Rocheport.

On June 7, near present-day Rocheport, Clark described pictographs on the towering bluffs that gave rise to the local name, Manitou Bluffs.



The river offers spectacular views of the Manitou Bluffs region.

Manitou Bluffs to the Kansas River

As Lewis and Clark left the mouth of Moniteau Creek near Rocheport, they began seeing major changes in the landscape. Now in a transition to the Great Plains, they saw their first sign of buffalo at salt licks along Petite Saline Creek. Vast prairies extended to the west. By the time the group reached the mouth of the Grand River, prairies and marshes occupied broad expanses of the floodplain.

Between Manitou Bluffs and Glasgow, the floodplain remains constricted by the bedrock valley walls of the Ozarks. Visitors can reach the Missouri River at Stump Island Access and from De Bourgmont Access, a couple of miles up the Lamine River. French traders had told Lewis and Clark of lead deposits up the “La Mine,” the last of the truly Ozarkian tributaries they would pass.

Above Glasgow, the river has cut a much broader valley across the plains of western Missouri. Again, the



Yellow cress supplemented the crew's diet of wild game.

crew encountered large, shifting islands of sand that threatened their keel boat.

The river twisted across the broad bottoms, scouring new marshes and frequently leaving oxbows in its former course. You can get a sense of the way the river looked then at Grand Pass Conservation Area. One of the few large conservation areas in this reach, its extensive wetlands provide habitat for numerous waterfowl that migrate along the Missouri River.

Farther west, at Cooley Lake Conservation Area, is an oxbow that was abandoned by the river before Lewis and Clark passed. The crew began seeing an even greater abundance of wildlife near Cooley Lake. Many of the animals were eating the immense crop of mulberries that grew there.

Lewis and Clark camped for several days at the mouth of the Kansas River, where they studied an area that would be home to Pierre Chouteau's fur trading post in 1821. The area would later be called Westport Landing. Now, of course, it's Kansas City. Here they caught and ate “several large catfish.”

Hunters venturing up the Kansas River also saw their first buffalo, and one group brought in a young wolf to tame. The first journal reference to abundant flocks of now extinct Carolina parakeets was made here.

Having come west 390 miles in six weeks, the crew headed north up the Missouri toward the Mandan villages.

Kansas River to the Iowa State Line

The journey north brought them to the Great Plains of the West. They more frequently encountered wolves, buffalo and elk. They also saw floodplain lakes visited by swans, pelicans, wood ducks and other waterfowl.

Prairies stretched to the horizon. The weather became hotter and more sultry, causing heat-related illnesses and discomfort. Still, the Corps persevered.

They passed several abandoned French settlements near present day Ft. Leavenworth, and camped on the west side of the river on the banks of what became Little Bean Marsh Conservation Area. Today this outstanding marsh is isolated on the floodplain on the east side of the river. A boardwalk leads to the marsh, and a tower provides excellent viewing of abundant wetland wildlife.

The Corps of Discovery greeted the morning of the Fourth of July with a blast from its cannon. Later, the party passed an oxbow lake that Clark described as a mile



Clark noted steep, loess-hill prairies, like these at Star School Hill Prairie Conservation Area in Atchison County.

wide and 7-8 miles long, with brilliantly clear water and numerous young geese. Called “Gosling Lake” by Clark, this was likely the lake at Lewis and Clark State Park.

The Corps members began describing the numerous beaver that would later fuel future fur trading commerce. Lewis’ dog, Seaman, was skilled at chasing beavers from their lodges.

Journal entries that day describe extensive and beautiful prairies covering the floodplains and adjacent hills. They named Fourth of July Creek and Independence Creek. The latter still bears that name as it flows into the Missouri, just north of Atchison, Kansas.

The party celebrated Independence Day that evening with another cannon salute and an extra gill of whiskey.

Heat and a treacherous, meandering river slowed travel the next week. The expedition passed St. Michael’s Prairie at present day St. Joseph on July 7 and did not reach Big Lake until July 11. Along the way, they frequently reported tremendous numbers of wildlife associated with the abundant wetlands.

Wetlands on this portion of the Missouri River are at Bob Brown, Squaw Creek, Big Lake and Deroin Bend conservation areas. Today, these wetland wildlife areas

are being managed to restore the wet prairies, marshes, bottomland forests and ponds indigenous to this region. Their wet soils attract thousands of mallards, blue-winged teal and Canada and snow geese, along with herons, shorebirds and wintering bald eagles.

From Big Lake north, the floodplain and adjacent hills were largely prairie. Clark was impressed by the steep, loess-hill prairies that lined the floodplain. You can still see beautiful loess-hill prairies at Brickyard Hill and Star School conservation areas.

On their last day in Missouri, Lewis rode horseback through the bottoms near the Nishnabotna River. He described it as “one of the most beautiful, level and fertile prairies that I ever beheld.”

As it traversed what would become the state of Missouri, The Corps of Discovery traveled 66 days and nearly 600 miles. This part of their journey seasoned the crew and prepared them for the hardships and adventures to come.

The Bicentennial celebration of the Corps of Discovery expedition is a good opportunity to visit some of the landmarks Lewis and Clark passed and described, and to kindle your pioneering spirit. ▲





If Leaves Could Talk

“Some
floated
gently down
in pairs,
as if
they were
old friends
traveling
together.”

By Travis Moore
illustrations by Mark Raitel

One morning last fall, I sat in my deer stand and watched oak leaves fall. Some may wonder why I was watching leaves instead of watching for deer. The reason is I didn't see any deer, but I did see plenty of oak leaves. Watching them fall was a great way to pass the time.

As the rising sun touched the highest points of the trees, a few early leaves drifted down. The warming glow crept deeper into the treetops, and leaves began to drift down at an unbelievable pace. The falling leaves actually sounded like light rain in the still woods.

As I watched them float to the ground, the thought came to me that I might be witnessing the deaths of countless multi-colored leaves. I wondered if they felt any agony in falling, and if they tried to resist, to hang on, to last a little longer.

I preferred to believe that the moment of their falling is what sustains them during their lives on a tree. Falling is their crowning achievement. They were born to fall.

I couldn't help but notice that no two oak leaves fell the same way. Each descent was as individual and unique as a snowflake. As I watched, however, I was able to identify some general styles of falling.

Lots of leaves seemed to spin to the ground. Spinners remind me a lot of my 3-year-old son who stands in the front yard, twirling around at a dizzying pace. He then usually tumbles to the ground with a hearty giggle.

Roller coasters went into a quick dive, only to put on the brakes and come nearly to a stop before leaning into another dive. I recalled how my stomach sank to my knees the last time I rode a roller coaster.

The drag racers didn't show much form. They seemed to want to reach the ground as quickly as possible. Per-

haps they had found their six months of being stuck to a tree unbearable and spent most of that time planning their escape. I have known people who were like that.

Gliders reminded me a lot of wise old grandparents. They sailed down at a comfortable pace, as if to say "It doesn't matter how you get there or how fast you go, you still wind up in the same place."

Some gliders drifted in small circles toward the ground as if descending a spiral staircase. I guessed they wanted to travel, but they didn't really want to go too far away.

I decided the free-stylers were the Generation X of the leaf world. These free-spirited souls would glide, roll, spin and bank before they hit the ground. It was as if they put everything they had into their fall. Perhaps they had choreographed their descents during their time on the tree.

Each leaf seemed to add its own touch to whatever style it chose. My favorite was one I called "Granny gets her kicks." She was a glider who caught some "good air" and added a loopety-loop about halfway down.

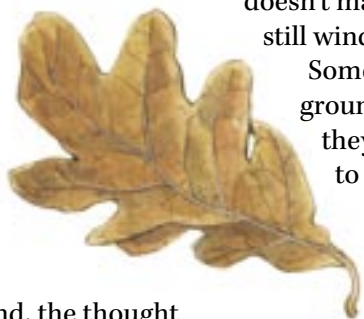
Often pairs or small groups of leaves floated gently down like old friends traveling together. As with the others, their journey ended on the forest floor. At least they would spend the rest of their existence among friends.

A few leaves even landed on me as I sat. I said "Hello!" and released them to finish their journey.

Before I knew it, two hours had passed. I smiled at how absorbed I'd been in the falling of leaves. I knew, however, that a large part of the reason I go to the woods is to see things I wouldn't otherwise notice and to reflect on things that normally would not merit a second thought.

On the way home, I even asked myself, "If I was a falling leaf, what would my style be?"

I grinned at the possibilities. ▲



DEER Management for the Future

*Hunters and
landowners
help develop
new deer
regulations.*

Successful deer management depends on the cooperation of hunters. The Department of Conservation collects biological data on deer to track reproductive and mortality rates. We also conduct public surveys and hold public meetings to get people's input so we can improve our deer management.

by Lonnie Hansen and
Bill Heatherly





New deer hunting regulations encourage hunters to take more does from the deer population.

Deer management is always a “work-in-progress,” a planned response to deer population growth, changes in hunter harvest patterns, and public opinion. Because hunting regulations are our primary tools for managing Missouri’s deer herd, our hunting seasons have evolved from very limited, bucks-only opportunities to the much more liberal regulations of today.

The 2004 deer hunting seasons represent a major shift in how we manage deer. Driving this change is the continued imbalance of Missouri’s deer herd, which still contains an overabundance of does in many parts of the state. Good management requires that we bring the numbers into a more favorable balance by taking more does from the population.

At the same time, steady harvest pressure on yearling and 2-year-old bucks has kept their numbers consistently low and allowed only a few to survive to the older age classes. More and more Missouri deer hunters are telling us they would like the opportunity to take larger bucks.

Wildlife biologists believe that both goals are best accomplished by balancing the sex and age structure

VENISON FOR THE NEEDY

The Share the Harvest program allows hunters to donate deer meat to needy Missourians. The Conservation Federation of Missouri is coordinating a payback program that will pay \$35 toward processing when hunters donate a whole deer to Share the Harvest.

During the Urban Portion of the firearms season, the processing fee for whole deer donations will be fully covered at certain processors in the open counties.

Call 573/634-2322, or visit <www.confedmo.org> for a current list of participating processors.



of the herd. As the proportion of does in the population decreases, the number of does that must be taken each year to control deer herd growth also decreases, even though the overall number of deer does not change. Decreasing the proportion of does will increase the proportion of bucks, including bucks in the older age classes.

We came up with several potential hunting regulation changes that would help maintain a balanced and healthy deer population. Before choosing one, however, we wanted to consult hunters and landowners to find out which management option they would favor and support.

This past year, we conducted 23 public meetings throughout Missouri. At each meeting we presented five deer management options and encouraged people to tell us which they preferred. We tallied 2,901 written responses. To gain an even broader-based picture of attitudes toward possible management changes, we also conducted statewide random surveys of deer hunters and landowners.

As you might expect, the meetings and written comments revealed a wide range of opinions regarding deer management issues. However, one option—antler-point restrictions—enjoyed broad public support.

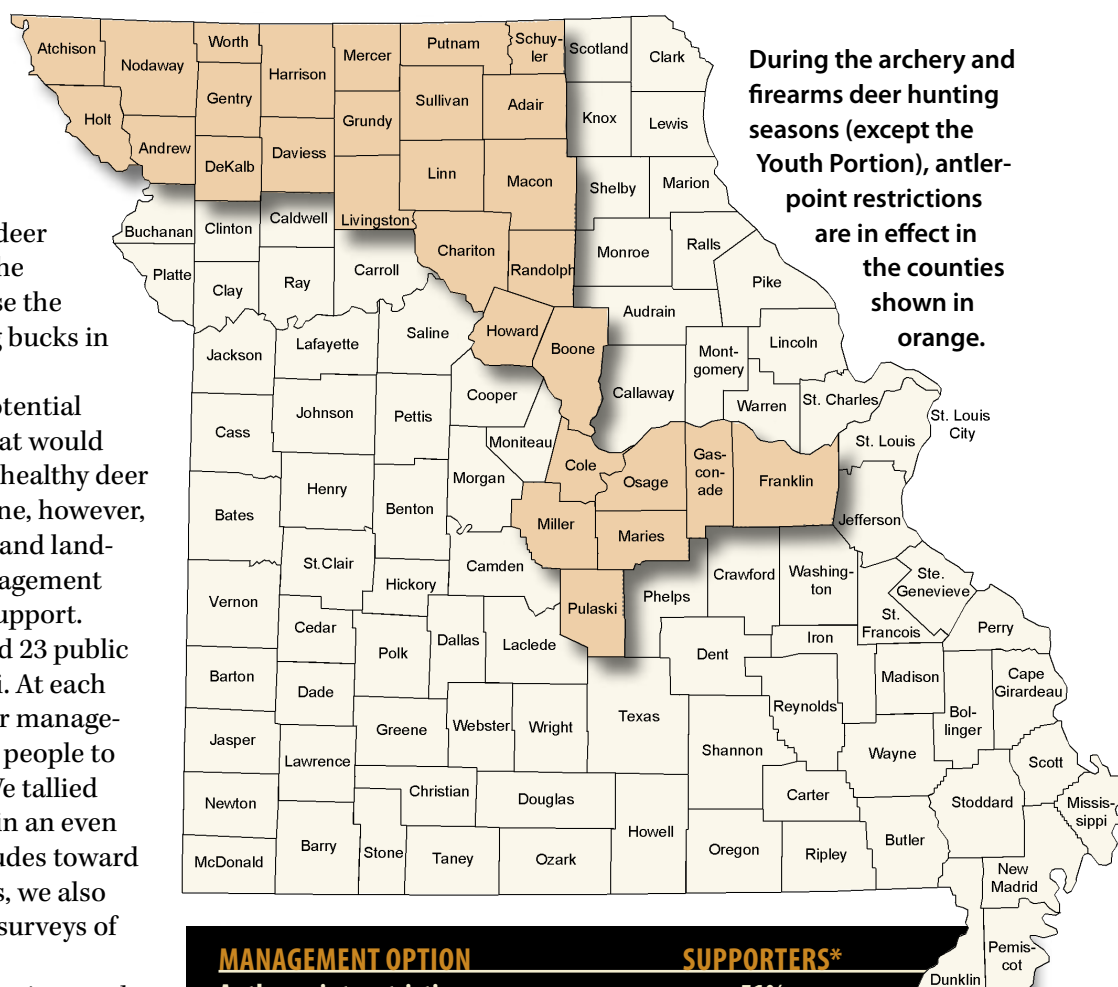
Pilot program

In April, the Conservation Commission approved a pilot program to test antler-point restrictions in 29 counties. In those counties during the archery and firearms deer hunting seasons, an antlered deer must have a minimum of four points on at least one side to be legal. If the rack has at least four points on one side, it doesn't matter how many points are on the other side.

Every point at least 1 inch long counts, including the brow tine, the point at the end of the main beam, and any broken tine that is at least 1-inch long.

The only exception to the antler-point restriction is that youths hunting during the two-day Youth Portion of the firearms season may take a buck with fewer than 4 points on a side. This exception was suggested by many of those attending the public meetings.

The antler-point restrictions should encourage a



MANAGEMENT OPTION

SUPPORTERS*

Antler-point restrictions

51%

Move season out of rut

26%

Earn-a-buck

24%

Shorten buck season

8%

Buck permit quota

5%

*Some favored more than one option.

significant number of hunters who would normally take a small-antlered buck to take a doe instead. This would increase the doe harvest in those pilot counties. In addition, most of the yearling bucks protected under the 4-point rule should survive to be legal bucks in 2005.

If, as we expect, the doe harvest increases and remains relatively high, the new antler-point restriction should control both deer numbers and increase the percentage of mature bucks in the deer population. If doe harvest is inadequate, however, other deer management options must be considered.

The progress of the pilot program will be measured for up to five years. Biological factors and public reaction, however, may require us to make more changes even within this time frame.

During the deer season, we will collect teeth and record the number of points and antler beam diameter of bucks brought to selected check stations. This will help us track how the pilot regulations affect age and antler characteristics over time. Also, annual statewide attitude surveys will measure hunter and landowner satisfaction with regulations and deer population status.

WIN A LIFETIME PERMIT!

Obtain permits early for a chance to win a lifetime hunting and fishing permit.

In partnership with the Missouri Conservation Heritage Foundation, resident hunters have a chance to win a Missouri Lifetime Conservation Partner Permit and other great prizes. Get your Firearms Any-Deer Hunting Permit or Youth Deer & Turkey Hunting Permit by November 5, and you will automatically be entered to win.

All of the results will be carefully analyzed to determine the success of the pilot program and how it might be modified to further improve deer management.

Deer hunters and landowners play a critical role in Missouri deer management. The Department of Conservation continues to depend on input from both these groups to help us improve the way we manage the deer herd. The new antler-point restrictions that came about from our partnership with deer hunters and landowners should have the effect of increasing the harvest of does while, at the same time, giving Missouri hunters a better opportunity to take bigger bucks.

Other changes

The Conservation Department also changed other regulations and management strategies that hunters need to know. These changes can be found the 2004 Fall Deer and Turkey Hunting Regulations and Information booklet, available at permit vendors and Department offices.

- We've eliminated the deer management units, which often proved confusing because they contained several counties and parts of counties. Deer will now be managed county by county.
- Archery season opened on September 15 to provide bowhunters with additional opportunity.
- We've expanded the Urban Portion of firearms season to increase antlerless deer harvest in high deer density areas. From October 8 through October 11, hunters may use any legal deer hunting method to take antlerless deer in Boone, Cass, Christian, Clay, Cole, Greene, Jackson, Platte, St. Charles, St. Louis and Webster counties.
- We've simplified the deer checking procedure at check stations. Hunters now have 24 hours to check their deer, and they can check their deer in any county.
- Landowners can no longer use (home-made) farm tags. Resident landowners may obtain their no-cost permits from any permit vendor. Resident landowners can check their deer by telephone or over the Internet. ▲



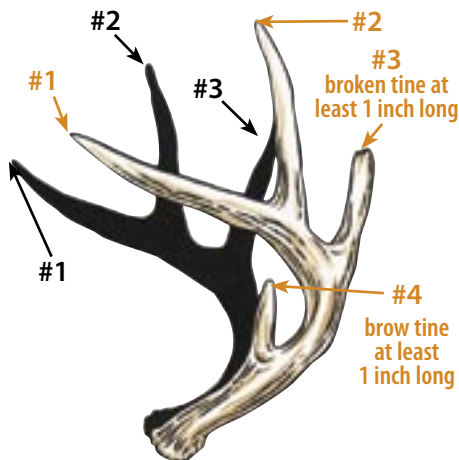
Antler-point restrictions allow more bucks to live longer and grow bigger antlers.

ANTLER TIPS for Hunting in Counties with Antler-Point Restrictions

How to count points

Each of the following counts as a point:

- an antler point, if it is at least 1 inch long
- the brow tine, if it is at least 1 inch long
- the end of the main beam
- any broken tine that is at least 1 inch long.



Tines, main beams and brow tines all count as a point if they are at least 1 inch long. A buck with the seven-point rack above with three points on one side (labeled in black) and four on the other (labeled in orange) is a legal deer in the counties shown in orange on the map on the previous page.

Does, Button Bucks and Bucks with spikes

Does, button bucks and bucks with spikes less than 3 inches are legal to take on Antlerless or Any-Deer Permits; but for deer management, it is better to take does.



Doe—LEGAL



Button buck—LEGAL



Bucks with spikes less than 3 inches long
LEGAL



Bucks with spikes 3 inches long or more
PROTECTED

Bucks with antlers

Bring binoculars and give yourself plenty of time to count antler points before you take a shot. Wait for a buck that has at least four points on one side.



PROTECTED

Letting these younger males mature will increase the number of adult bucks in the future.



LEGAL

A legal buck must have a minimum of four points on one side, regardless of the number of points on the other side, like these seven-point bucks. Successful hunters wait for the best shot—when the deer turns broadside. Learn to recognize antlers from this view to minimize errors in the field.



Where the BUFFALO ROAM

By Dale Cornelius, photos by Cliff White

Beat the winter doldrums with a nighttime gigging trip.

The lamps aboard our boat on Pomme de Terre Reservoir chased the darkness away. “There’s one!” my fishing partner called. I moved my gig head from one side of the boat to the other as a large, football-shaped fish cruised slowly toward us. The gig sliced through the water and found its mark. Seconds later, I lifted a huge buffalo fish into the boat.



Fish gigging during the fall and winter is an Ozarks tradition. In fact, evidence suggests that aboriginal Americans used bows and flint-tipped arrows and spears to harvest fish in the cold, clear water of Ozark streams. Early Americans took fish with gigs or longbows while wading small streams during the day or on moonlit nights.

European settlers also used spears or “gigs.” By about 1860, they were using kerosene lanterns to light the water at night. White-gas lanterns eventually replaced kerosene lanterns. Now, halogen bulbs powered by portable electric generators are becoming standard equipment for night gigging and longbow fishing enthusiasts.

These powerful lights mounted on the front of a boat make it possible for giggers and bow fishers to expand their sport to larger waters. Missouri’s large reservoirs,

such as Pomme de Terre, are ideal places to legally gig a variety of non-game fish.

Our reservoirs are famous for their bass, crappie, walleye and catfish, but they also contain huge populations of non-game species, such as buffalo, suckers, carp and gar, that are generally overlooked by anglers.

Taking these fish actually helps the fishery. Overpopulations of non-game fish compete with game fish for space and food, and can reduce their numbers and growth rates. Carp and buffalo often root out aquatic vegetation while feeding, which destroys important habitat for small fish.

When anglers, giggers and archers harvest non-game species, they help our management efforts on these reservoirs.

Buffalo, suckers and carp are excellent table fare when prepared properly. If you are not interested in eating the fish, your friends and neighbors will probably be happy to accept a mess of tasty, fresh fish.

Identifying legal, non-game species is critical when using a gig or longbow. Because both gigging and longbow fishing mortally wound the fish, you can’t practice catch-and-release.

Clear water greatly helps your ability to identify fish. A good test of water clarity is if you can see small stones on the bottom at a depth of 3 feet during daylight hours. Generally, the water in reservoirs is clearest during November, December and January. Of course, heavy rainfall and strong winds might stir up bottom sediments and cloud the water, but the water usually clears within a few days.

BASIC EQUIPMENT

☼ Cold water and weather—especially at night—demand that you dress warmly. Make sure you wear a personal flotation device and bring someone with you.

☼ Many giggers prefer a 14- to 18-foot johnboat with a front deck that’s enclosed by a rail. The rail should be about 36 inches high. Both outboards and electric trolling motors work well for gigging. Boats must be properly equipped with lighting and safety equipment to meet Missouri boating law requirements.

☼ You’ll need a light fastened to the front of the boat. The light can be powered by a portable generator or batteries, or fueled by propane or white gas. It should be capable of illuminating the water to a depth of 6 feet in a 20-foot diameter area.

☼ Washtubs or large buckets are handy to keep each gigger’s catch separate.

☼ Giggers usually use a heavy steel gig attached to a 10- to 12-foot pole. A wide array of equipment is available for bowfishing. Usually you can use the same bow, with a spool or reel added, that you use for deer hunting or target practice.

Gigging for non-game fish at night during late fall and winter is an Ozarks tradition. Electric lights have replaced gas and kerosene lanterns, but the methods for harvesting fish haven’t changed much.







Hone your archery skills by bowfishing for non-game fish (top). Popular species include (below, from top) carp, buffalo, river carpsucker and northern redhorse.

GIGGING RULES

Missouri's *Wildlife Code* allows you to gig non-game fish in impounded waters between sunrise and midnight from September 15 through January 31. Bowfishing for non-game fish is permitted during all hours throughout the year, except from February 1 through March 31, when it is permitted only between sunrise and midnight.

Game fish may not be taken using a gig or longbow. The daily limit is 20 fish of non-game species. Fish must be kept separate and identifiable by the taker. A Missouri fishing permit is required.



A BONELESS FEAST

Non-game fish are often overlooked as table fare because of their numerous bones. Proper preparation and cooking can solve this problem and make for some fine eating.

When cleaning large, non-game fish, it helps to equip yourself with a metal table spoon; a filleting knife; a flat cutting board longer than the fish you are cleaning; and a clean, water filled, bucket or large bowl.

① Scrape the scales from a dead fish using a dinner spoon or dull knife, leaving the skin on the fish.

② Large buffalo or carp have two layers of skin. Using a sharp knife, you can remove the outer skin (without removing scales first) and leave the thin inner skin on the side of the fillet.

③ Slice the fish diagonally just behind the gill cover until the knife blade touches the backbone.

④ Cut fillets from the sides of the fish by turning the knife blade and slicing along the backbone toward the tail. When cleaning large fish, You may have to saw through the heavier rib bones, or you can cut around them.

⑤ Lay the fillets skin side down and cut the ribs away from the rest of the fillet.

⑥ While rinsing the fillets in clean water, feel for scales that you may have missed.

⑦ With the skin side down, score the flesh by slicing down to, but not through, the skin. Make the slices about ¼-inch apart. Scoring the flesh breaks up the bones so they'll soften in hot cooking oil. That's why one of the best methods of preparing carp, buffalo and suckers is deep frying.

OZARKS FRIED FISH

Your fish cooker should have a frying basket and be capable of heating at least one gallon of cooking oil to 375 degrees. Other handy items include a few large bowls or pans and a roll of paper towels.

Mix yellow cornmeal (about a pound for each three pounds of fish), salt and pepper together in a large bowl. Don't add flour. It might prevent the fish from cooking properly. Use yellow cornmeal for a golden crust.

Apply the cornmeal to the fillets just before putting them into the cooker. When coating the fillets, work the cornmeal into the scored slots with your fingers. This helps the hot oil reach the bones so it can soften them.

Heat the cooking oil to 375 degrees. Make sure the oil is several inches from the top. You don't want the oil to boil over when you immerse the fish in it. If using peanut oil—my favorite—raise the cooking temperature to 400 degrees.

Place a few fillets in the wire basket and lower them into the hot oil very slowly. Don't try to cook too many pieces of fish at one time. They will cool the oil, and your fillets won't come out crispy.

Cook the fillets until they float in the oil and turn golden brown. This usually

takes less than 10 minutes. Place cooked fillets in a pan lined with paper towels.

If you've cleaned and cooked the fish properly, the fillets will seem bone-free or, at worst, you might notice just a few large bones.

CANNING CARP & BUFFALO

Canning also softens the many small bones of carp and buffalo. For canning, you'll need a pressure cooker, pint jars with lids and rings, salt and vinegar.

Fillet the fish, removing all rib bones and skin. Pack fillets tightly into clean pint jars to within 1 inch of the top. Add a teaspoon of salt and a tablespoon of vinegar to each jar. Fill jars to within ½-inch of the top with clean water. It may not take much if you have packed the fish tightly. Clean the jar rims with a clean wash cloth. Place lids on the jars and screw the rings over the lids hand tight.

Place jars in a pressure cooker and pour enough water in the cooker so that the jars are mostly submerged, but the tops remain uncovered by the water. Place the lid on the cooker and heat slowly, keeping a close watch on the cooker, until the pressure gauge reaches 10 to 12 pounds. Adjust heat so that the pressure remains constant within this range.

After cooking for 90 minutes at this pressure, turn off the heat and let the cooker cool before opening it. Properly sealed jar lids will be slightly concave after cooling. Occasionally jar lids will not seal. You should refrigerate these jars and eat fish from them within a few days. Store the sealed jars in a cool place and use the canned fish to make fish patties or fish casseroles.

Additional tips and recipes for preparing non-game fish can be found in "Cy Littlebee's Guide to Cooking Fish & Game." This book is available for \$3.50, plus tax and shipping, from the Nature Shop, Missouri Department of Conservation, P.O. Box 180, Jefferson City, MO 65102-0180, email <Estore@mdc.mo.gov> or you can call, toll-free, 877/521-8632. ▲



Scrape the scales from the dead fish using a spoon, dull knife or scraping tool.



Large buffalo or carp have two layers of skin. Remove the outer skin with a knife.



Lay the fillets skin side down to cut the ribs away from the rest of the fillet.



Being careful not to cut through its skin, make slices in the flesh ¼ inch apart.



Deer, turkey hunters need to watch out for each other Oct. 11

Fall Firearms Turkey Season and the Urban Portion of Firearms Deer Season overlap by one day this year. Hunters participating in those seasons on that day should be especially watchful for each other.

Oct. 11 is the last day of urban deer hunting and the first day of fall firearms turkey hunting. Firearms deer hunters are always required to wear hunter orange to advertise their presence and reduce the likelihood of accidents. Although turkey hunters normally wear camouflage to hide their presence, they are required to wear hunter orange in the counties open to deer hunting on Oct. 11.

Come see us in El Dorado Springs

The Conservation Department will celebrate the opening of the its El Dorado Springs office Oct. 15–16. At the open house, southwest Missouri residents can see native fish in a 210-gallon aquarium, view equipment used for conservation projects, tour informative exhibits and meet Smokey Bear. The event will run from 3 to 6 p.m. Oct. 15 and from 9 a.m. to 2 p.m. Oct. 16. The new office, at 1109 S. Main St., El Dorado Springs, serves the area between offices in Clinton and Joplin.

WOODLAND STEWARDSHIP CONFERENCE NOV. 5–6

The seventh Central Region Woodland Stewardship Conference will be held Nov. 5–6 in Nebraska City, Neb. The event gives landowners a chance to learn how to manage woodlands and related natural resources.

Workshops on pruning and tree identification will be held Friday afternoon, along with field trips. On Saturday, landowners can talk with professional foresters and attend presentations about woodland management, tree health, agroforestry and wildlife.

Conference registration costs \$35 (\$40 if postmarked after Oct. 29). For more information, contact Hank Stelzer 573/882-4444, <stelzerh@missouri.edu>.

DUCK NUMBERS DIP, HUNTING PROSPECTS STILL BRIGHT

Unfavorable nesting conditions cut into waterfowl reproduction this year, but a wet, mild summer may have set the stage for good hunting.

The number of North American breeding mallards was down 7 percent from last year and 9 percent below goals set under the North American Waterfowl Management Plan (NAWMP).

Wigeon and shoveler numbers were down 22 percent compared to last year, and blue-winged teal were down 26 percent. Species showing smaller one-year declines were pintail (-15 percent), green-winged teal (-8 percent) and gadwall (-2 percent).

The number of canvasbacks was up 11 percent from last year and 15 percent above the NAWMP goal. Scaup were up 2 percent from last year but still 39 percent below the NAWMP goal.

While these numbers are disappointing, Missourians still might be very pleased with the 2004 hunting season. Usually, waterfowl hunting success depends primarily on the weather.

Missouri will have a 60-day duck season and a 70-day Canada goose season again this year. Natural waterfowl foods are abundant, thanks to a wet summer. With continued normal rainfall, Missouri could be an extremely attractive stopping place for migrating ducks and geese. All that's needed is cold weather

to push waterfowl into the Show-Me State early in the season and a normal to late freeze-up date.

To keep tabs on waterfowl migration, visit <www.missouriconservation.org/hunt/wtrfowl/>.





HABITAT HINT:

Strip herbicide application benefits Bob

Do you want to make your grassland more attractive to bobwhite quail? Try creating temporary strips of open ground with herbicide strip spraying.

Spray herbicides that target grasses on strips 30 to 75 feet wide. This favors broadleaf plants that produce seeds for quail food. It also thins matted growth that quail can't walk through and creates bare ground, which quail need for dusting areas. Rabbits, deer, pheasant, turkey and songbirds also will appreciate the habitat created by treating CRP plots, old fields and idle areas.

Ideally, strips should cover one-third to one-half of a field each year. To prevent erosion, spray along field contour lines and next to brushy field edges. Shift treated areas each year so the whole field is sprayed every two or three years.

For best effect, spray when grasses have 6–10 inches of new growth. This usually is in May or June for warm-season grasses. Cool-season grasses respond best from October through November, or from mid-March through mid-May.

Spraying equipment may be available to borrow or rent from local county Soil and Water Conservation District offices. In some cases, government or private funds are available to defray the cost of strip spraying. For more information, call your nearest office of the Conservation Department or the U.S. Department of Agriculture. —*Steve Fisher*

Missouri could gain 20,000 additional acres of buffer habitat.

The U.S. Department of Agriculture Farm Services Agency will take applications for "Habitat Buffers for Upland Birds," a new practice of the Continuous Conservation Reserve Program, beginning Oct. 1.

Eligible lands are cropland edges. Landowners can plant 30- to 120-foot strips of grass as habitat for bobwhite quail and other declining grassland birds. Missouri was allotted 20,000 acres for this new practice. At the 30-foot minimum, this would create 5,500 additional miles of buffer habitat.

USDA offers participating landowners the traditional CRP rental payment, a per acre sign up bonus and the equivalent of 90 percent cost-share to establish grasses and shrubs.

Quail and Grassland Bird Leadership Council Takes Flight

The Quail and Grassland Bird Leadership Council believes that Missourians should be as aware of conservation issues in their own backyard as they are of rainforest issues in South America.

Bobwhite quail and many of Missouri's grassland songbirds rely on private landowners to provide their proper seasonal habitat needs, and right now their populations need help. The Council was recently formed to ensure that Missourians understand the critical habitat needs of quail and grassland birds, and to spur action among both the public and wildlife agencies that directly leads to "on-the-ground" habitat management.

The Council members are private citizens with close ties to conservation and agriculture, as well as conservation organizations such as Quail Unlimited, the Missouri Association of Soil and Water Conservation Districts, The Conservation Federation of Missouri, Audubon Missouri and the Missouri Prairie Foundation.

Council leaders, in cooperation with the Conservation Department, are helping to chart a course in Missouri to restore quail and grassland songbird numbers, and to educate the public about conservation of these species and the importance of habitat enhancement. Birdwatchers, native plant enthusiasts and upland bird hunters all benefit from enhanced grassland habitat.

BEWARE—DEER CROSSING!

September marks the start of white-tailed deer rutting season. That means more deer movement. To protect yourself:

- Be on guard whenever and wherever you drive.
- Scan the area on either side of the road ahead.
- Slow down if you see deer.
- Keep your guard up after deer cross the road. Others may follow.
- Hold the sides—not top or bottom —of the steering wheel to prevent deployed airbags from breaking your arms.
- Reschedule travel to reduce time on the road near dawn and dusk.
- Carry a cell phone so you can contact someone in an emergency.

If you do hit a deer, report it to a law-enforcement agency. This will be to your advantage if you file an insurance claim. It also will help track the frequency of deer-vehicle accidents statewide.





Aspiring naturalists getting organized

Missourians can increase their knowledge of the natural world and share that knowledge through the new Missouri Master Naturalist Program. The program is sponsored by the Conservation Department and the University of Missouri Extension.

Master naturalists receive 40 hours of basic training and field experience in natural resource management and natural history. They also get eight hours of advanced field experience focusing on their special interests.

They commit to use their training in at least 40 hours of community service annually. That could include conducting inventories of plants or wildlife, giving nature talks at schools, youth camps or nature centers, advising landowners on wildlife management or building and maintaining trails.

To form a master naturalist chapter, you need to be sponsored by a Conservation Department and an Extension team. West Plains had the first such team, and another is forming in Columbia. Planning also is underway for other chapters in Joplin and St. Louis.

For more information, visit <www.monaturalist.org>.

DEER SEASON QUESTIONS?

Do you have questions about changes in this year's deer hunting regulations? Call toll-free 866/403-3899 between 10 a.m. and 5 p.m. Oct. 30 and 31. Operators will provide quick answers to any question about deer-hunting regulations or permits.

Ozark Trail Trek Oct. 9–16

Information about the 2004 Ozark Trail Trek published in the August News & Almanac was incorrect. The event will run from Oct. 9–16, with opportunities for participants to backpack for three, four or seven days.

Sponsored by Hostelling International/American Youth Hostels (HI-AYH) and the Ozark Trail Council, the event joins novices with seasoned veterans. October's cool, sunny days and crisp nights are perfect for enjoying fall colors and the rugged beauty of the "Current River" and "Between the Rivers" sections of the Ozark Trail.

The cost for Ozark Trail Council members is \$175 for a full week or \$90 for a half week. Non-members pay \$185 or \$100. The price includes transportation from St. Louis, trail shuttle, experienced leaders, an Ozark Trail patch, maps, an information packet and the evening meal on Oct. 9.

The difficulty of the trip varies. Daily treks average 7 to 8 miles for a total of about 50 miles. A midweek break after completing the first trail section will give participants a chance to shower and spend the night in a motel.

For more information, contact Gateway Council HI/AYH, 314/644-4660, <clerk@moonlightramble.com>, or go to <www.moonlightramble.com>.

MISSOURI EXEMPT FROM TOPEKA SHINER CRITICAL HABITAT DESIGNATION

When the U.S. Fish and Wildlife Service (FWS) designated 836 miles of streams as critical habitat for the endangered Topeka shiner, no Missouri streams were on the list.

Missouri is doing such a good job of looking after the 2-inch fish that the FWS exempted the Show-Me State from critical habitat designation.

"Missouri has again led the way in demonstrating that through a collaborative spirit we can conserve endangered species while providing private landowners technical and financial assistance and regulatory flexibility," wrote FWS Field Supervisor Charles M. Scott.

The Topeka shiner actually is better off with the voluntary, cooperative measures Missouri developed to help private landowners care for the fish's habitat than it would be under federal regulations with the critical habitat designation.

"Critical habitat" refers to land that is considered necessary for the survival of an endangered species. Federal agencies won't authorize, fund or carry out any action in designated critical habitat until it has been reviewed to ensure it

won't hurt the species in question. Exempting Topeka shiner habitat in Missouri from the designation allows greater flexibility for agencies and landowners.

Scott gave special recognition to Endangered Species Coordinator Peggy Horner, Fisheries Regional Supervisor Harold Kerns, Private Lands Regional Supervisor Kyle Reno, and Assistant to the Director Denise Garnier for their work to ensure the shiner's future in Missouri.





Kansas mussels pose imminent threat to Missouri waters

The discovery of zebra mussels at two lakes in eastern Kansas is bad news for Wichita city officials and worrisome for Missourians, too.

El Dorado Lake, northeast of Wichita, has adult zebra mussels. Larval zebra mussels recently were discovered in Cheney Reservoir northwest of the town. City officials say the cost of keeping the prolific mollusks from clogging municipal water intakes could be millions of dollars.

Missouri officials urge anglers and boaters traveling between Kansas and Missouri to take precautions to prevent bringing tiny zebra mussel larvae, called veligers, into the Show-Me State. Once here, the exotic invaders could cause incalculable property damage and upset the ecological balance in lakes and streams. The result could be impaired fishing, boating and swimming, reduced property values and increased utility costs.

For information on how to avoid spreading zebra mussels, visit <www.missouriconservation.org/nathis/exotic/zebra/> or request the free publication "Zebra Mussels, Missouri's Most Unwanted" from Zebra Mussel, P.O. Box 180, Jefferson City, MO 65102 or <pubstaff@mdc.mo.gov>.

Missouri fish consumption advisory updated

With a few exceptions, catfish, carp, buffalo, drum, suckers and paddlefish are safe to eat in any amounts throughout Missouri. That's a brief summary of the Missouri Department of Health and Senior Services' (DHSS) fish consumption advisory.

"In Missouri, we have seen a slow decrease in contamination levels of some chemicals," said DHSS Environmental Public Health Section Chief Gale Carlson. "One reason is chlordane, causing the most widespread contamination in the past, was removed from the market by the U.S. Environmental Protection Agency (EPA) in 1988."

The EPA has tightened its standards for consumption of fish contaminated with mercury in recent years. For this reason, the DHSS continues to advise women who are pregnant, who may become pregnant, nursing mothers and children 12 and younger not to eat largemouth bass longer than 12 inches from any Missouri waters.

The DHSS also has a consumption advisory on fish in some east-central Missouri streams as a result of lead contamination.

The full advisory is available at <www.dhss.state.mo.us/ehcdp/Rpt-facts-consults.htm>. A summary is printed in the 2004 Summary of Fishing Regulations, which is available wherever fishing permits are sold.

Fish for fun at Stone Mill Spring Branch

Trout anglers can find winter fishing adventures at Stone Mill Spring Branch in Pulaski County from Nov. 1 through the last day of February. The scenic spot in the Mark Twain National Forest is open for catch-and-release fishing from 8 a.m. until 4 p.m. daily during that period.

On the last Saturday in February, the area hosts a spring youth-fishing derby. Access to the area is through Fort Leonard Wood. For current regulations, permits and access information, call the Fort Leonard Wood Sportsman's Center, 573/596-4223.

MARK YOUR CALENDAR FOR EAGLE DAY EVENTS

Mark your calendar now for the Conservation Department's Eagle Day events. They give you a chance to see live eagles in the wild through telescopes and up close in indoor programs. Call the telephone number provided for detailed information about each event.

- Dec. 4–5, Squaw Creek National Wildlife Refuge, 816/271-3100.
- Jan. 8–9, Lake Ozark, 573/526-5544.
- Jan. 8–9, Smithville Lake, 816/532-0174.
- Jan. 15–16, Old Chain of Rocks Bridge (St. Louis), 314/877-1309.
- Jan. 22–23, Clarksville, 660/785-2420.
- Jan. 22–23, Springfield Conservation Nature Center, 417/888-4237.
- Jan. 29, Mingo National Wildlife Refuge, 573/222-6343.



Apply by Oct. 22 for conservation agent jobs



The Conservation Department is accepting applications for conservation agent training. Successful candidates will attend a 26-week class that begins in April. Qualified candidates must have a bachelor's degree in wildlife, fisheries or natural resources management, forestry, wildlife law

enforcement, criminal justice, biology or biological sciences (does not include life science studies) or wildlife conservation.

Responsibilities for conservation agents include public relations, education and law enforcement. Trainees must be able to operate motor vehicles and boats, use firearms safely and communicate effectively. All trainees must be in good physical condition and meet physical fitness requirements.

The training is conducted in Jefferson City. Housing is provided, and trainees are paid at the annual rate of \$33,024 during the training period. Upon successful completion of training, Conservation Agents must be willing to accept assignment and relocate to anywhere in the state of Missouri.

To apply, submit a conservation agent application with college transcripts to the Missouri Department of Conservation by Oct. 22. For applications and job descriptions call 573/522-4115, ext. 3694, from 8 a.m. to 5 p.m. Monday through Friday, or visit <www.missouriconservation.org/about/jobs>.

Outdoor Calendar

Hunting

	open	close
Common Snipe	9/1/04	12/16/04
Coyotes	5/10/04	3/31/05
Crow	11/1/04	3/3/05
Deer/Turkey, Archery	9/15/04	11/12/04
	11/24/04	1/15/05
Deer, Firearms		
Urban Antlerless Only	10/8/04	10/11/04
Youth	11/6/04	11/7/04
November	11/13/04	11/23/04
Muzzleloader	11/26/04	12/5/04
Antlerless	12/11/04	12/19/04
Doves	9/1/04	11/9/04
Furbearers	11/15/04	2/15/05
Groundhog	5/10/04	12/15/04
Pheasants		
North Zone	11/1/04	1/15/05
South Zone	12/1/04	12/12/04
Quail	11/1/04	1/15/05
Rabbits	10/1/04	2/15/05
Ruffed Grouse	10/15/04	1/15/05
Sora and Virginia Rails	9/1/04	11/9/04
Squirrels	5/22/04	2/15/05
Turkey, fall firearms	10/11/04	10/24/04
Woodcock	10/15/04	11/28/04

Fishing

Black Bass (most southern streams)	5/22/04	2/28/05
Bullfrog & Green Frog	Sunset	Midnight
	6/30/04	10/31/04
Nongame Fish Stream Giggling	9/15/04	1/31/05
Trout Parks	3/1/04	10/31/04

Trapping

Beaver	11/15/04	3/31/05
Furbearers	11/15/04	2/15/05
Otters and Muskrats	11/15/04	varies

See regulations for otter zones, limits and dates

For complete information about seasons, limits, methods and restrictions, consult the Wildlife Code and the current summaries of Missouri Hunting and Trapping Regulations and Missouri Fishing Regulations, the Fall Deer and Turkey Hunting Information, Waterfowl Hunting Digest and the Migratory Bird Digest. To find this information on our Web site go to <<http://www.missouriconservation.org/regs/>>.

The Conservation Department's computerized point-of-sale system allows you to purchase or replace your permits through local vendors or by phone. The toll-free number is 800/392-4115. Allow 10 days for delivery of telephone purchases. To purchase permits online go to <<http://www.wildlifelicence.com/mo/>>.

AGENT NOTEBOOK

One event had a big

emotional impact on me this summer.

It started with a knock at my door late one evening. I recognized the man at the door, but I was curious when he asked me to step outside to talk. The man sat on the steps of my porch and told me how he had recently lost his wife after many years of marriage, and how he was alone for the first time in a long time.

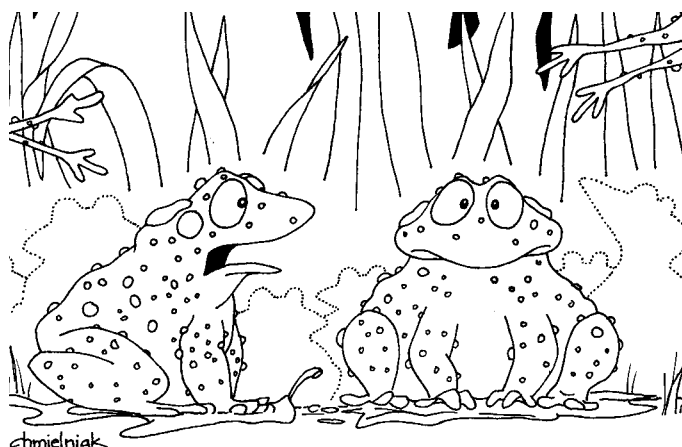
He had been doing some thinking and wondered if I would help him put on a fishing day for children at the lake on his farm. We decided on a day, and he announced it at his church and spread the word among others that we were going fishing and all you had to do was show up. This was one of those events that you just don't know what you'll get.

I arrived with the fishing poles and immediately grew concerned because there were lots of children, very few with poles, and even more adults. The gentleman assembled the anxious group of anglers and asked if I would talk to them about fishing first. I made a short presentation for the kids. I had a few extra poles that I equipped with casting plugs. I then challenged the adults to try casting into several buckets we set up.

Some people built a fire and began cooking hotdogs. Children began catching fish. It was all I could do to keep up with the tangles and snagged hooks.

At one point I looked up and saw the man responsible for all this fun. The same man that sat on my porch a week earlier wiping tears from his eyes was now smiling and laughing and having a big time.

Anyone that questions the power of the outdoors and fishing, for putting your stress and worries behind you, should have been there that day. It has sure stuck with me."—Steven Nichols



"You're lucky to be the oldest and mom and dad's favorite. If you're the 1,613th like me, you're always overlooked."



Program Schedule

Television the way Nature intended!

Broadcast Stations

Cape Girardeau UPN "The Beat" WQTV / Saturdays 8:30 a.m.

Columbia KOMU (Ch 8 NBC) / Sundays 11:00 a.m.

Hannibal KHQA (Ch 7 CBS) / Weekends, check local listing for times

Kansas City KCPT (Ch 19 PBS) / Sundays 7:00 a.m.

Kirksville KTVO (Ch 3 ABC) / Saturdays 5:00 a.m.

St. Joseph KQTV (Ch 2 ABC) / Weekends, check local listings for times

St. Louis KSDK (Ch 5 NBC) / Sundays, 4:30 a.m.

Warrensburg KMOS (Ch 6 PBS) / Sundays 6:30 p.m.

Cable Stations

Branson Vacation Channel / Fri., Sat. 8:00 p.m.

Brentwood Brentwood City TV / Daily, check local listing for times

Cape Girardeau Charter Cable Ed. Ch. 23 / Thursdays 6:00 p.m.

Chillicothe Time Warner Cable Channel 6 / Wednesdays 7:00 p.m.

Hillsboro JCTV / Mondays 12 p.m. & 6 p.m.

Independence City 7 / Thurs. 2 p.m., Sat. 10 a.m. & Sundays 8 p.m.

Joplin KGCS / Sundays 6 p.m.

Mexico Mex-TV / Fridays 6:30 p.m. & Saturdays 6:30 p.m.

Noel TTV / Fridays 4:30 p.m.

O'Fallon City of O'Fallon Cable / Wednesdays 6:30 p.m.

Parkville City of Parkville / First and third Tuesdays of the month 6:30 p.m.

Perryville PVTV / Mondays 6 p.m.

Raymore Govt. Access-Channel 7 / Various, check local listings for times

Raytown City of Raytown Cable / Wed. 10:00 a.m. & Saturdays 8:00 p.m.

St. Charles City of St. Charles-Ch 20 / Tues. 5:00 p.m. and Wed. 10:00 a.m.

St. Louis Charter Communications / Saturdays 10:30 a.m.

St. Louis City TV 10 / Mondays 11:30 a.m., Wednesdays 3:30 p.m.

St. Louis Cooperating School Districts / Wednesdays 9 a.m.

St. Louis DHTV-21 / Mondays 10:30 a.m.

St. Louis KPTN-LP/TV58 / Thursdays 10:00 a.m.

St. Peters City of St. Peters Cable / Various, check local listings for times

Ste. Genevieve Public TV / Fridays 1 p.m., 6 p.m. & 12 midnight

Springfield KBLE36 / Nine times a week, check local listing for times

Sullivan Fidelity Cable-Channel 6 / Wed. 11:00 a.m. and Fri. 7:00 p.m.

Union TRC-TV7 / Tuesdays 3:00 p.m.

West Plains OCTV / Mondays 6:30 p.m.

Meet Our Contributors



Dale Cornelius is the Conservation Department's fisheries management biologist for Pomme De Terre Reservoir. He has been working for the Department since 1980 with various responsibilities and in various locations around the state. Dale Lives in Lebanon with his wife, Pam, and son, Derek.

Lonnie Hansen has studied deer and been involved in their management for more than 20 years, 15 of them as a Conservation Department wildlife research biologist. He enjoys hunting and fishing and managing the flora and fauna on his property north of Columbia.



Bill Heatherly has been a wildlife programs supervisor at the Conservation Department's office in Jefferson City since 1997. Before that, he spent two years as an urban wildlife specialist, resolving deer and other wildlife-related problems in the Kansas City area.

Travis Moore is a fisheries management biologist in Hannibal. He enjoys a variety of outdoor activities with his wife and two sons. He said his grandmother read a draft of his article and said she'd never be able to look at a falling leaf the same way again.



A native Missourian, **Tim Nigh** has worked as an ecologist for the Conservation Department for almost 20 years. He lives in Columbia along with his 19-year-old son, Sean. He is a river enthusiast and a fisherman, and he enjoys history.

Rhonda L. Rimer is the natural history biologist for the Conservation Department's Ozark Region. She's interested in natural community and rare plant restoration. Her research on Virginia sneezeweed will be published in the October edition of "The Natural Areas Journal."





Lingering Cuckoo

A yellow-billed cuckoo perches in a dense thicket of black willow on a dreary day in mid October. Soon the bird will migrate to South America. Cuckoos are secretive and rarely seen but their distinctive tropical sounding song can be heard during the breeding season. Early settlers called these birds "fish crows." —*Jim Rathert*